

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Tulsa District Powered Industrial Truck (Forklift) Safety Training Program

1. General. The forklift safety program is designed to provide for safe operation of powered industrial trucks (lift trucks, forklifts) and to outline a system for selecting, training, testing, and qualifying operators of forklifts.

2. Purpose. This memorandum establishes policies and procedures for the revised forklift operator training standard.

3. Applicability. This memorandum applies to all employees of the Tulsa District who operate a forklift.

4. References:

(a) 29 CFR 1910.178 – Powered Industrial Trucks

(b) ASME/ANSI B56.1-1993 – Safety standards for low lift and high lift trucks

(c) 29 CFR 1917.27 – Marine Terminals

(d) 29 CFR 1926.27 – Powered industrial trucks used in construction

(e) EM 385-1-1, Corps of Engineers Safety and Health Requirements Manual

5. Operator selection. The supervisor must ensure that the employee is competent to operate a forklift as demonstrated by successful completion of a forklift training program and a practical operating examination.

6. Training. Training must consist of a mix of:

(a) Formal instruction – lecture, discussion, video, or written material.

(b) Practical training – demonstrations performed by the trainer and practical exercises performed by the trainee operating the forklift he or she will operate. An operator who has been trained on a particular type of powered industrial truck (e.g., a sit-down counterbalanced rider truck) may, without additional training, operate other makes and models of that same type of truck.

(c) Operators must be trained on

1. General forklift operations;

2. Operating instructions, warnings, and precautions for a specific truck type;

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3. Differences in operating the forklift and operating an automobile;
  4. Forklift controls and instrumentation, where they are located, what they do, and how they work;
  5. Engine or motor operation; steering and maneuvering;
  6. Visibility, including restriction due to loads;
  7. Fork and attachment adaptations, operation, and use limitations;
  8. Vehicle capacity and stability; any vehicle inspection and maintenance that the operator will be required to perform;
  9. Refueling and/or charging and recharging of batteries; operating limitations; and any other operating instructions, warnings, or precautions in the manual for the specific forklift operated.
- (d) Operators must be trained on
1. Workplace topics; surface conditions where the truck will be operated;
  2. Composition of loads carried and load stability;
  3. Load manipulation, stacking, and unstacking;
  4. Pedestrian traffic in areas where the truck will be operated;
  5. Narrow isles and other restricted places where the truck will be operated;
  6. Hazardous locations where the truck will be operated; ramps and other sloped surfaces that could affect the vehicle's stability;
  7. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust; and
  8. Other unique or potentially hazardous environment conditions that could affect safe operation.
- (e) Sufficient evaluation and refresher training must be conducted to enable the employee to retain and use the knowledge and skills needed to operate the forklift safely.

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7. Refresher training.

(a) Refresher training at each workplace must be conducted by a person who has enough knowledge, training, and experience to train and evaluate operators. Operators must be evaluated

for competency to ensure that the operator has the necessary refresher training and that the training is effective.

(b) An evaluation of each operator's performance must be conducted at least every 3 years. Refresher training is also required if;

1. The operator is involved in an accident or near miss accident; the operator has been observed operating the forklift in an unsafe manner;
2. The operator has been determined in an evaluation to need additional training;
3. There are changes in the workplace that could affect safe operation of the truck; or
4. The operator is assigned to a different type of truck.

8. Certification. Supervisors must certify in writing that the initial formal training, practical evaluations and refresher training have been done. Copies of the pre-start inspection (Appendix A), operator performance evaluation (Appendix B), and written tests will be forwarded to the Safety Office.

9. Employee responsibilities:

- (1) Employees shall practice the principles of defensive driving while operating a forklift.
- (2) Employees shall immediately report any forklift accident, no matter how minor, to their supervisor or other appropriate official.
- (3) Employees shall wear seatbelts while operating a forklift.
- (4) Employees shall wear hard hats and steel-toed boots while operating a forklift.
- (5) Employees shall wear appropriate PPE, (e.g., safety glasses, gloves) when conditions dictate.
- (6) All forklifts must be provided with functional back-up alarms. Back-up alarms shall be audible and sufficiently distinct to be heard under prevailing conditions.
- (7) Alarms shall operate automatically upon commencement of backward motion.

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10. Supervisor responsibilities:

(1) Supervisors shall insure that employees have received formal classroom training and pass a written and hands-on practical examination before they are allowed to operate a forklift.

(2) Refresher training must be completed every 3 years.

(3) In case of an accident, supervisors must ascertain that seat belts were worn.

11. Forklifts – General

(a) Before any forklift is placed in use, a pre-start inspection shall be completed and the forklift certified to be in safe operating condition. Forklifts shall be inspected to assure that the following parts, equipment, and accessories are in safe operating condition:

- (1) Tires;
  - (2) Brakes; accelerator;
  - (3) ID plate; (specification plate);
  - (4) Cylinders and hydraulic lines;
  - (5) Chains;
  - (6) Engine, proper oil level, transmission fluid, radiator fluid, no visible leaks;
  - (7) Horns, lights, and back-up alarms;
  - (8) Energy system, batteries;
  - (9) Forks, carriage, mast and backrest;
  - (10) Gauges, indicators, and moving parts;
  - (11) Mast and tilt cylinders;
  - (12) Parking brakes;
  - (13) Steering;
- (b) Records of the inspection shall be maintained at the project office.

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(c) Whenever equipment is found to be unsafe, the equipment shall be removed from service until it is repaired.

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# FORKLIFT CHECKLIST

## COMPONENT TIRES

Check for:

- ☐ No excessive wear, splitting or missing tire material
- ☐ Good rim condition
- ☐ Tight wheel nuts
- ☐ No separation of rubber and rim
- ☐ Proper tire pressure (if pneumatic tires are used)
- ☐ Proper tires used for forklift and surfaces.

## CYLINDERS AND HYDRAULIC LINES

Check:

- ☐ Hydraulic fluid at proper levels
- ☐ No damage to or fluid leaking from lift and tilt cylinders
- ☐ Mounting hardware on cylinders is secure
- ☐ Hydraulic lines okay
- ☐ Hoses okay
- ☐ Secure connections at fittings.

## CHAINS

Check:

- ☐ Chains are clean and lubricated
- ☐ Chains have no visible wear
- ☐ Chains have equal tension.

## ENGINE

Check:

- ☐ Engine has no loose or frayed wiring
- ☐ Air filter okay
- ☐ Oil filter okay
- ☐ Proper oil level
- ☐ Transmission fluid okay
- ☐ Radiator fluid okay
- ☐ No visible leaks under forklift.

## HORNS AND LIGHTS

Check:

- ☐ Horns work properly
- ☐ Lights work properly.

## ENERGY SYSTEM

Check for battery powered forklifts:

- ☐ Battery mounting secure
- ☐ Battery casing in good shape
- ☐ All connections secure
- ☐ Proper fluid level
- ☐ Vent holes are clear.

Check for gas, propane or diesel fueled forklifts:

- ☐ Fuel tanks have no cracks, broken welds or other damage
- ☐ All valves and couplings okay
- ☐ Mounting hardware is secure.

## FORKS

Check:

- ☐ Forks are centered on carriage
- ☐ Forks are equally spaced
- ☐ Forks have no cracks or other damage
- ☐ Forks are right for the job
- ☐ Locking pins work correctly.

## CARRIAGE, MAST AND BACKREST

Check carriage, mast and backrest for:

- ☐ No visible damage
- ☐ Secure mountings
- ☐ No broken welds
- ☐ Roller tracks are lubricated.

## GUARDS

Check:

- ☐ No broken welds
- ☐ Mounted securely
- ☐ No visible damage.

## SPECIFICATION PLATE

Check:

- ☐ Identification plate is readable.

## GAUGES

Start forklift and check:

- ☐ All gauges work properly
- ☐ All indicators work properly
- ☐ Moving parts work smoothly and properly.

## MAST AND TILT CYLINDERS

- ☐ Lift carriage to its maximum height
- ☐ Lower carriage to just above the floor
- ☐ Carriage moves smoothly and completely.

## PARKING BRAKES

- ☐ Set parking brake and accelerate
- ☐ Parking brake prevents the forklift from moving.

## ACCELERATOR, TRANSMISSION AND SERVICE BRAKES

Release parking brake and check:

- ☐ Forklift accelerates smoothly
- ☐ Brakes slow forklift without jerking or locking
- ☐ Brakes are not too soft
- ☐ Forklift moves forward properly
- ☐ Forklift moves backward properly
- ☐ Backup signal sounds when moving in reverse.

## STEERING

Check:

- ☐ Steering wheel turns while stopped
- ☐ Steering wheel turns while moving
- ☐ Steering wheel turns forklift smoothly and precisely
- ☐ No strange noise
- ☐ No hesitation.

## FORKLIFT IS SAFE TO OPERATE

APPENDIX "A"

Signed \_\_\_\_\_



# EVALUATION/PERFORMANCE CHECKLIST

Operator's Name: \_\_\_\_\_

Observation Date: \_\_\_\_\_

Instructor: \_\_\_\_\_

Location: \_\_\_\_\_

	Satisfactory	Needs Improvement
<b>Follows Inspection Checklist</b>		
<b>Demonstrates proper use of controls:</b>		
■ Clutch		
■ Inching control		
■ Tilt		
■ Lift		
■ Attachments		
■ Steering mechanism		
<b>Follows proper procedures for an "unattended" vehicle</b>		
<b>Demonstrates competency in basic maneuvering skills:</b>		
■ Starts and stops smoothly		
■ Maintains proper speed		
■ Scans effectively		
■ Uses horn when appropriate		
■ Keeps body parts within vehicle		
<b>Demonstrates competency in picking up a load:</b>		
■ Matches load with truck's capacity		
■ Checks load for stability		
<b>Demonstrates competency in driving with a load:</b>		
■ Travels with load close to ground		
■ Keeps an adequate following distance		
■ Drives in reverse with oversized load		
■ Maintains a safe speed		
<b>Demonstrates competency in stacking a load:</b>		
■ Approaches the load squarely		
■ Stacks straight, squarely and not too high		
■ Deposits load safely		
■ Does not move until forks are lowered		
<b>Demonstrates competency in loading/unloading a trailer/rail car/other:</b>		
■ Checks the dock plate		
■ Checks the condition of the floor		
■ Checks the trailer chocks, jack stands and brakes		